

## **REMARKS**

In the Office Action dated April 23, 2008, restriction among claims 41-53 (Group I), claims 54-66 (Group II) and claims 67-79 (Group III) was required under 35 U.S.C. §121 and §372. This restriction requirement is respectfully traversed for the following reasons.

The Examiner stated the inventions identified as Groups I, II and III do not relate to a single general inventive concept under PCT Rule 13.1. The Examiner provided three reasons in substantiation of this position.

First, the Examiner stated the claims of Group I require that the plurality of electrodes are interacting with a subject's diaphragm, while Groups II and III "merely" require that the electrodes be capable of interacting with a subject's diaphragm. In response, Applicants submit that the claims of Groups II and III do not "merely" require that the electrodes be capable of interacting with the diaphragm. In the claims of those Groups, just as in the claims of Group I, the electrodes are stated to be "configured to interact with the subject," and this is for the purpose, which is required under the generally accepted guidelines for implementing 35 U.S.C. §112, second paragraph, to avoid "claiming the patient." Simply because the electrodes in all of those claims have been stated to be configured to interact with the subject does not mean that the electrodes are "merely" capable of doing so. The remainder of the language of the independent claims of Groups II and III clearly involves actual manipulations of the signals obtained by the electrodes being configured to interact with the subject, and therefore this precludes any interpretation that the electrodes are merely "capable" of doing so. Under the Examiner's interpretation, there could never be unity of invention with regard to a method and a

comparable apparatus claim, since the method steps must necessarily always be drafted in the manner presented in the present application, and the apparatus claims must also necessarily be drafted in the manner presented in the present application.

As the second reason in substantiation of the restriction requirement, the Examiner stated that Groups II and III require a computer to be used for estimating and determining, but Group I does not. In response, Applicants acknowledge that the word “computer” is not explicitly used in independent claim 41, again because that claim is a method claim, but claim 41 was intentionally drafted to require non-manual estimating and determining, by virtue of the phrase “automatically electronically” in each of those steps. Applicants submit that any performance of the estimating and determining steps in claim 41 that proceeds “automatically electronically” can be considered to take place in some form of a computer. The Examiner is not permitted to ignore any terms in a patent claim, and therefore it is not understood how the Examiner can conclude that the estimating and determining steps in claim 41 do not have to be undertaken in some form of computing device. Other than the aforementioned “automatically electronically” limitation in claim 41, however, it would serve no purpose in the context of a method claim to refer to the word “computer” or the term “computing device.” Again, therefore, if this is a distinction that the Examiner believes to require restriction under 35 U.S.C. §121 and/or §372, then a method and a corresponding apparatus for executing electronically-performed steps and functions, respectively, could never exhibit unity of invention.

Lastly, the Examiner stated that Group II requires that the electrodes combine the signals to form a multi-channel raw signal, while Group III requires that the

computer-readable medium do so. Applicants acknowledge that the inclusion of this function or step as being performed based on the programming by the computer-readable medium is not correct, since the signals are actually combined in a circuit, of which embodiments are shown in Figures 2 and 3. Independent claim 67 has been amended to remove this function from the features that the programming instructions cause, and independent claim 54 has been amended to make clear that there is a combining circuit and that it is not the electrodes themselves that combine the respective signals of the signal channels to form the multi-channel raw signal. Applicants therefore submit that the claims of all Groups are now comparable or equivalent on that point.

Aside from the above points regarding the language of the claims, Applicants respectfully submit that the restriction requirement is not in conformity with PCT Rules 13.1 and 13.2. As the Examiner has noted, PCT Rule 13.1 requires that the claims relate to a group of inventions linked so as to form a single general inventive concept. PCT Rule 13.2 requires that a technical relationship exist among the inventions that involves one or more corresponding special technical features. The “special technical features” should be features that make a contribution over the prior art.

All three independent claims in the present application recite exactly the same signal processing, filtering and defining a window in which the signal is filtered. These are corresponding “special technical features” within the meaning of PCT Rule 13.2. As noted above, the differences identified by the Examiner arise solely because the same feature must be phrased slightly differently in a method claim than in an apparatus claim and in a computer-readable medium claim. If the claims did

not do so, they would not be in compliance with 35 U.S.C. §112, second paragraph. Applicants cannot be penalized for complying with §112, second paragraph by the Examiner then imposing a restriction requirement, simply because the necessities regarding claim language under §112, second paragraph have been followed. As noted above, under the Examiner's interpretation, there could never, under any circumstance, be unity of invention between these types of claims, and this clearly is not the case, and is clearly not what was intended under the PCT Rules.

Applicants acknowledge, however, that even when a restriction requirement is traversed, a provisional election must be made. If the restriction requirement is maintained, Applicants therefore elect the claims of Group I (claims 41-53) for immediate examination.

An election of species requirement also was imposed in the April 23, 2008 Office Action. The Examiner's citation of PCT Rule 13.1 for this purpose is not understood, since the concept of "election of species" is unique to United States patent practice. Despite the fact that the present application is a PCT application, the requirements for substantiating an election of species under United States patent practice must be followed.

To the extent that the Examiner believes PCT Rule 13.1 should still be applied in this circumstance, then it is clear that the species identified by the Examiner are, in fact, unquestionably linked to form a general inventive concept, by virtue of depending from a generic independent claim that encompasses all species.

Moreover, by generally citing PCT Rule 13.1, the Examiner has deprived the Applicants of the *quid pro quo* of electing a species in response to such a requirement. The basis for proper identification of different species among

dependent claims is that the Examiner considers the species to be patentably distinct from each other. If the Applicants acquiesce to an election of species requirement, and elect a species for immediate examination, and the Examiner locates prior art that prevents patentability of the elected species, the Applicants are assured, by the *quid pro quo* embodied in an election of species requirement, that the identical prior art could not then be applied against a divisional application directed to the non-elected species, because of the requirement that properly-identified species must be patentably distinct.

Since the Examiner has not made those statements in the present Office Action, Applicants are being required to make an election without the countervailing benefit.

For example, with regard to the species that the Examiner has identified as A1 and A2, if Applicants elected the species of A1, and the Examiner located prior art that the Examiner believed precluded patentability of that species, would the Examiner then agree that the same prior art would not preclude patentability of species A2? The same question must be answered with regard the species identified as B1 and B2, and the species identified as C1 and C2. If the Examiner is not willing to make such a statement at this time, then the election of species requirement is not proper.

Again, recognizing that Applicants must still make a provisional election even if traversing the election of species requirement, Applicants therefore provisionally elect the species A1, B1 and C1 for immediate examination.

The claims reading on species A1 are claims 48-50 in Group I, claims 61-63 in Group II, and claims 74-76 in Group III.

The claims reading on species B1 are claim 45 in Group I, claim 58 of Group II, and claim 71 of Group III.

The claims reading on species C1 are claim 44 in Group I, claim 57 in Group II, and claims 70 in Group III.

If both the restriction requirement and the election of species requirement are maintained, therefore, the claims that should be immediately examined are claims 41-45, 47-50 and 53,

The Commissioner is hereby authorized to charge any additional fees which may be required, or to credit any overpayment to account No. 501519.

Submitted by,



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